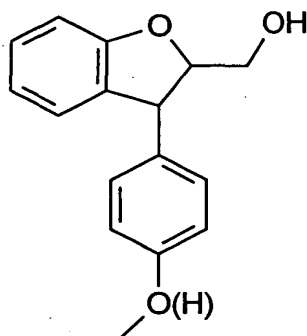


CLAIMS

1. A process for producing a novel lignin derivative, which comprises using a lignophenol derivative containing a diphenylpropane unit formed by binding a carbon atom at an ortho-position relative to a phenolic hydroxyl group of a phenol derivative to a carbon atom at a benzyl-position of a phenylpropane fundamental unit of lignin, and binding an oxygen atom of the hydroxyl group and a β -positional carbon atom under alkali conditions under which the hydroxyl group can dissociate, to obtain an arylcoumaran derivative containing an arylcoumaran unit in which a coumaran skeleton is bound to an aromatic ring of a phenylpropane unit of lignin.

2. A novel lignin derivative represented by the following chemical formula and having an arylcoumaran unit in which a coumaran skeleton is bound to an aromatic ring of a phenylpropane unit of lignin.

15 Chemical formula:



3. A process for producing a novel lignin derivative, which comprises heating a lignophenol derivative containing a diphenylpropane unit formed by binding an aromatic carbon atom of a phenol derivative to a carbon atom at a benzyl-position of a phenylpropane unit of lignin, with a cross-linking functional group forming compound under alkali conditions under which a phenolic hydroxyl group of an introduced phenol derivative and/or a phenolic hydroxyl group originally existing in lignin can dissociate, to introduce a cross-linking functional group at an ortho-position and/or para-position of the phenolic hydroxyl group to obtain a lignin cross-linking derivative containing a diphenylpropane unit having a cross-linking functional group.

4. A novel lignin derivative having a cross-linking functional group at an ortho-

position and/or a para position relative to a phenolic hydroxyl group of a lignophenol derivative containing a diphenylpropane unit formed by binding an aromatic carbon atom of a phenol derivative to a carbon atom at a benzyl-position of a phenylpropane unit of lignin.

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5. A molded product obtained by molding a fibrous, chip-like or powdery molding substrate material, which comprises the arylcoumaran derivative according to claim 3.

6. A molded product obtained by molding a fibrous, chip-like or powdered molding substrate material, which comprises the lignin cross-linking derivative according to claim 4.

7. A method for treating a molded product, which comprises adding a solvent having affinity for an arylcoumaran derivative to a molded product containing the arylcoumaran derivative and recovering the arylcoumaran derivative.